

第1章 外部発表

1. 環境影響研究部

誌上発表リスト

- 1) Satoh, Y., S. Imada, T. Tani, A. Ishimine and R. Arai (2022) Investigation of ratio of carbon to hydrogen (C/H ratio) in agricultural plants for further estimation of their productivity of organically bound tritium. *J. Environm. Radioactiv.* 246, 106845.
- 2) Satoh, Y., A. Ishimine and H. Kakiuchi (2021) Cryogenic vacuum extraction scarcely changes low-level tritium (^3H) concentrations in free water extracted from environmental samples. *J. Radioanal. Nucl. Chem.* 331, 165–169.
- 3) Ueda, S., H. Hasegawa, Y. Ohtsuka, S. Ochiai and T. Tani (2021) Ten-year radiocesium fluvial discharge patterns from watersheds contaminated by the Fukushima nuclear power plant accident. *J. Environm. Radioactiv.* 240, 106759.
- 4) Satoh, Y. and S. Wada (2021) Characterizing behavior of fatty acids in natural organic samples during loss on ignition (LOI) in each temperature. *Chem. Lett.* 50, 1758–1761.
- 5) Satoh, Y., S. Imai and S. Ueda (2021) Spatial variation of radioiodine (^{129}I) dissolution from sediment of a brackish lake beside a spent nuclear fuel reprocessing plant in Japan. *J. Radioanal. Nucl. Chem.* 329, 1477–1489.
- 6) Satoh, Y. and H. Kakiuchi (2021) Calibration method to address influences of temperature and electrical conductivity for a low-cost soil water content sensor in the agricultural field. *Agric. Water Manag.* 255, 107015.
- 7) Satoh, Y. and S. Imai (2021) Flux and pathway of iodine dissolution from brackish lake sediment in the northeast of Japan. *Sci. Total Environ.* 789, 147942.
- 8) Imada, S., T. Tani, Y. Tako, Y. Moriya and S. Hisamatsu (2021) *In situ* experimental exposure of fruit-bearing shoots of apple trees to $^{13}\text{CO}_2$ and construction of a dynamic transfer model of carbon. *J. Environm. Radioactiv.* 233, 106595.
- 9) Wada, S., Y. Satoh and T. Hama (2022) Massive loss and microbial decomposition in reproductive biomass of *Zostera marina*. *Estuar. Coast. Shelf Sci.*, 275, 107986.
- 10) 増田 毅 (2021) トリチウムの体内動態研究, 特集 トリチウムの保健物理の最前線. *日本原子力学会誌 ATOMO Σ*, 63(10), 718-722.
- 11) 海野 佑介 (2022) フィチン酸から探る土壌有機態リンの機能と動態. *日本土壌肥科学雑誌*, 93(1), 34-39.

口頭発表リスト

- 1) Yamazawa, H., Yu Cai, T. Matsumoto, J. Moriizumi, H. Hasegawa and T. Kawano (2021) Long-range transport of Rn-222 in eastern Asian and deposition of its progenies in Japan, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 2) Yoshida, S. (2021) Research on the environmental effects of radionuclides at IES – An overview, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 3) Nagashima, H., Y. Hayashi, S. Tanimoto, K. Shiraishi, Y. Sakamoto and H. Tauchi (2021) Analysis of Dose and Dose-

rate dependence of Radiation-Type mutation induced by tritiated water: An approach using a hyper-sensitive cell system, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.

- 4) CAI, Y., H. Yamazawa, J. Moriizumi and H. Hasegawa (2021) Analysis of Pb-210 deposition distribution Characteristics based on high resolution atmospheric transport/deposition model calculation, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 5) Tako, Y., R. Arai, Y. Yanagawase and S. Nishikawa (2021) Development of in-situ $^{13}\text{CO}_2$ exposure and ^{13}C fixation rate determination systems for whole apple tree and fruit-bearing shoots and a precise $^{13}\text{CO}_2$ exposure chamber for young potted trees, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 6) Satoh, Y., S. Imada, Y. Tako and Y. Moriya (2021) Experimental evaluation of distribution of ^{14}C photoassimilated into carbohydrates in different growth stages of fruit-bearing apple shoots using a $^{13}\text{CO}_2$ in-situ exposure system, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 7) Hasegawa, H., H. Kakiuchi, S. Ochiai, N. Akata, S. Ueda and S. Tokonami (2021) Temporal variation of post-accident ^{129}I in atmospheric particulate matter collected from an evacuated area of Fukushima Prefecture, Japan, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 8) Ueda, S., H. Hasegawa and H. Kakiuchi (2021) Tritium and Iodine-129 in water samples collected adjacent to a spent nuclear fuel reprocessing plant in Rokkasho, Japan, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 9) Abe, K., K. Oshima, J.-H. Chiang, H. Suwa and S. Hisamatsu (2021) Variation of exposure dose rates from radionuclides discharged by the spent nuclear fuel reprocessing plant in Rokkasho under different yearly weather conditions, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 10) Nagai, M. and S. Suzuki (2021) Temperature-dependent degradation of soil organic matter in farmlands and pastures, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 11) Unno, Y., A. Takeda and Y. Takaku (2021) Investigation of short term chemical change in stable ruthenium added to rainwater using X-ray absorption fine structure analysis, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 12) Takeda, A., Y. Unno, H. Tsukada, Y. Takaku and S. Hisamatsu (2021) Soil-soil solution distribution coefficient of radioiodine in surface soils around the spent nuclear fuel reprocessing plant in Rokkasho, Japan, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 13) Yamagami, M. and M. Yanai (2021) Effect of rice plant root activity on the chemical form of iodine in cultivated soil suspensions, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological*

Effects of Low Dose-rate Radiation", Aomori, Aomori, Japan, September.

- 14) Kihana, K. and M. Yamagami (2021) Inhibitory effect of calcium on cesium absorption by plant roots, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 15) Ohtsuka, Y., H. Hasegawa, Y. Ayabe and S. Hisamatsu (2021) Distribution of radiocesium in black pine tree forests in Rokkasho, Aomori, Japan during 2017–2019, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 16) Imada, S., Y. Tako and Y. Moriya (2021) Direct assimilation of atmospheric carbon by young apple fruits, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 17) Masuda, T., T. Tani, R. Arai and Y. Tako (2021) Metabolism of ^{13}C in cattle semitendinosus muscle after administration of ^{13}C labeled orchard grass, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 18) Kawabata, H., M. Yanai, Y. Takaku and S. Hisamatsu (2021) Transfer of cesium and iodine from the surface to the interior of apple fruit, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 19) Imai, S., K. Matsushita, Y. Takaku, Y. Ishikawa and Y. Satoh (2021) Distribution of iodine-127 in marine organisms from coastal waters around Aomori, Japan, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 20) Kakiuchi, H., H. Hasegawa and N. Akata (2021) Tritium concentrations in atmospheric water vapor and pine needles near the spent nuclear fuel reprocessing plant at Rokkasho, Japan, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 21) Yanai, M., H. Kawabata and Y. Takaku (2021) Absorption of iodine by the surface of apple leaves, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 22) Hirao, S., H. Kakiuchi, T. Tamari, S. Sugihara, N. Shimax, N. Akata and M. Tanaka (2021) Investigation of the concentration of tritiated water vapor in the air around the FDNPP, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 23) Shibata, T. and Y. Ishikawa (2021) Deuterium transfer analysis including the food chain from seawater into abalone, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 24) Nakasone, S., A. Ishimine, K. Nakamura, Y. Ishizu, Y. Shiroma, M. Tanaka, N. Akata, H. Kakiuchi, T. Sanada and M. Furukawa (2021) Characteristics of temporal variation for tritium concentration and stable isotope ratio in environmental water collected from Okinawa Island, subtropical region of Japan, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 25) Tani, T. and M. Nagai (2021) Retention of organically bound deuterium in grass plants exposed to heavy water vapor at different growth stages, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and*

the Biological Effects of Low Dose-rate Radiation", Aomori, Aomori, Japan, September.

- 26) Veerasamy, N., T. Masuda, H. Kakiuchi and H. Nagashima (2021) Development of a method to quantify non-exchangeable organically bound tritium in mice organs, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 27) 海野 佑介, 武田 晃, 山田 大吾, 高久 雄一(2021)放射性トレーサー添加法を用いたリン酸施肥が牧草への放射性セシウム移行性に与える影響評価. *日本土壌肥料学会 2021 年度北海道大会 (札幌大会)*, WEB 開催, 9 月.
- 28) 武田 晃, 海野 佑介, 山田 大吾, 高久 雄一(2021) K-41 安定同位体を用いた土壌中カリウム供給力評価法の検討. *日本土壌肥料学会 2021 年度北海道大会 (札幌大会)*, WEB 開催, 9 月.
- 29) 川端 一史, 箭内 真寿美, 高久 雄一 (2021) リンゴ果実表面に負荷した粒子状ヨウ素の降雨による除去. *園芸学会・令和3 年度 (2021 年度) 秋季大会*, WEB 開催, 9 月.
- 30) 増田 毅, 高井 大策, 柿内 秀樹 (2021) 環境科学技術研究所におけるトリチウム放射線影響のための実験計画. *日本放射線影響学会第 64 回大会*, WEB 開催, 9 月.
- 31) 長谷川 英尚, 柿内 秀樹, 赤田 尚史, 床次 慎司 (2021) 青森県六ヶ所村及び弘前におけるヨウ素 129 降下量の時系列変化, *日本地球化学会第 68 回年会*, WEB 開催, 9 月.
- 32) 植田 真司 (2021) 六ヶ所使用済み核燃料再処理施設の稼働に向けた放射性核種に関する動態研究, *日本地球化学会第 68 回年会*, WEB 開催, 9 月.
- 33) 佐藤 雄飛, 今井 祥子 (2021) 過去の試験操業時に水圏堆積物へ蓄積した使用済み核燃料再処理施設由来の ^{129}I の溶出状況の評価, *日本地球化学会第 68 回年会*, WEB 開催, 9 月.
- 34) 武田 晃, 海野 佑介, 塚田 祥文, 高久 雄一, 久松 俊一 (2021) 六ヶ所村大型再処理施設周辺土壌におけるヨウ素の存在形態と固液分配の関係, *日本地球化学会第 68 回年会*, WEB 開催, 9 月.
- 35) 今田 省吾, 多胡 靖宏, 柳川瀬 賢幸, 守谷 友紀 (2021) リンゴ果実への ^{14}C 移行評価のための成木地上部への $^{13}\text{CO}_2$ ばく露実験系の構築, *日本地球化学会第 68 回年会*, WEB 開催, 9 月.
- 36) 伊志嶺 聡伸, 柿内 秀樹, 佐藤 雄飛, 長谷川 英尚 (2021) 実験圃場を用いた植物中トリチウム濃度変動要因の評価, *日本原子力学会・2021 年秋の大会*, WEB 開催, 9 月.
- 37) 石川 義朗, 谷 享 (2022) アマモとホタテガイの関係, *アマモサミット青森大会*, 青森市及び一部 WEB 開催, 1 月.
- 38) 多胡 靖宏 (2021) CEEF (Closed Ecology Experiment Facilities) を用いた物質循環閉鎖居住実験, *第 65 回宇宙科学技術連合講演会*, WEB 開催, 11 月.
- 39) 増田 毅 (2021) トリチウム及び炭素からの被ばく線量評価, *第 67 回宇宙航空環境医学会東北宇宙生命科学研究会*, 東京都港区, 11 月.
- 40) 今田 省吾, 守谷 友紀, 多胡 靖宏 (2022) 落葉果樹が前年の秋に同化した ^{13}C の新生器官への利用: 成木を対象としたトレーサ実験, *第 69 回日本生態学会大会*, 福岡市及び一部 WEB 開催, 3 月.
- 41) 海野 佑介, 武田 晃 (2022) X 線吸収微細構造解析を用いた土壌に添加した安定ルテニウムの短期間における化学形態変化調査, *第 23 回「環境放射能」研究会*, WEB 開催, 3 月.
- 42) 木花 将, 山上 睦 (2022) 植物の Ca による Cs 吸収抑制効果, *第 23 回「環境放射能」研究会*, WEB 開催, 3 月.

その他

- 1) 島田 義也, 百島 則幸, 稲葉 次郎, 小野 哲也, 田内 広, 宇佐美 徳子, 小嶋 光明, 笹谷 めぐみ, 島田 幹男, 砂押 正章, 松本 英樹, 松本 義久, 赤田 尚史, 馬田 敏幸, 柿内 秀樹, 真田 哲也, 杉原 真司, 鈴木 正敏, 高橋 知之, 玉利 俊哉, 辻本 忠, 野村 直希, 平尾 茂一, 古川 雅英, 森泉 純, 横山 須美, 増田 毅, 斎藤 幹男, 高井 大策, 綾部 慈子, 伊志嶺 聡伸, 小倉 啓司, 香田 淳, 小村 潤一郎, 中平 嶺, 中村 慎吾, 藤川 勝義, 山内 一己, 箭内 敬典 (2021) 原子放射線の影響に関する国連科学委員会(UNSCEAR)2016年報告書科学的附属書 C 内部被ばく核種の生物学的影響—トリチウム— (日本語版), 日本放射線影響学会ホームページ及び日本保健物理学会ホームページへの掲載 (<https://www.jrrs.org/>及び<http://www.jhps.or.jp/>)

2. 生物影響研究部

誌上发表リスト

- 1) Takai, D., A. Abe, H. Miura, I.B. Tanaka, M. Saito, J.I. Komura (2021) Adverse effects of chronic low dose-rate gamma-ray exposure ameliorated by environmental enrichment in mice. *Int. J. Rad. Res.* 19(3), 543-550.
- 2) Ogura, K., Y. Ayabe, C. Harada, S. Tanaka, I. B. Tanaka III, S. Tanaka and J. Komura (2021) Increased frequency of copy number variations revealed by array comparative genomic hybridization in the offspring of male mice exposed to low dose-rate ionizing radiation, *Int. J. Mol. Sci.*, 22(22):12437.

口頭発表リスト

- 1) Imaoka, T., M. Nishimura, K. Daino, A. Hosoki, K. Kudo, D. Iizuka, K. Nagata, M. Takabatake, Y. Nishimura, T. Kokubo, T. Morioka, K. Doi, Y. Shimada and S. Kakinuma (2021) Dose-rate effect of rat mammary carcinogenesis, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 2) Tanaka, I. (2021) Experimental studies at the IES on the biological effects of chronic low dose-rate radiation exposure in mice, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 3) Ayabe, Y., I. Kawaguchi, S. Tanaka, I. B.-Tanaka III, J. Komura and Y. Shimada (2021) Analyses of cancer latency patterns that caused death in B6C3F1 mice continuously exposed to low dose-rate gamma rays using the Armitage-Doll multistage model., *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 4) Wada, T., T. Kinugawa and S. Tanaka (2021) On radiation-induced aging: accelerated- or premature-aging, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 5) Kinugawa, T., T. Wada, Y. Manabe, F. Sato and S. Tanaka (2021) Combined analysis of cancer incidence and lifespan in mice exposed to chronic low dose-rate radiation, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 6) Sunaoshi, M., B. J. Blyth, Y. Shang, C. Tsuruoka, T. Morioka, M. Shinagawa, M. Ogawa, Y. Shimada, A. Tachibana, D. Iizuka and S. Kakinuma (2021) Age-dependent thymic regeneration by activation of PI3K-AKT-mTOR signaling

in B6C3F1 mice after fractionated irradiation, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.

- 7) Nakamura, S., I. B. Tanaka III, J. Komura and S. Tanaka (2021) Radiation hypersensitivity of the oocyte causes premature menopause and obesity in female mice chronically exposed to low dose-rate of γ -rays at 20 mGy per day, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 8) Sugihara, T., H. Murano and J. Koumra (2021) Adaptive response of mice continuously irradiated with low dose rate radiation (Yonezawa effect), *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 9) Yamauchi, K. (2021) Effects of Calorie Restriction on the Life Span of Mice Continuously Exposed to Low-Doserate Gamma-rays, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 10) Yanai, T., S. K.-Kudo, Saitou M., S. Nakamura, S. Tanaka, J. Komuraz and Y, Shimada (2021) Effects of Continuous Exposure to Low Dose-Rate Gamma-Rays on the Hematopoiesis of Mice Differs from Exposures at High Dose-Rates, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 11) Fujikawa, K., T. Sugihara, S. Tanaka, I. Tanaka, S. Nakamura, M. N.-Murano, H. Murano and J. Komura (2021) Genome-wide gene expression analysis of the liver from low dose-rate irradiated mice, *The 2021 International Symposium on the "Environmental Dynamics of Radionuclides and the Biological Effects of Low Dose-rate Radiation"*, Aomori, Aomori, Japan, September.
- 12) 高井 大策 (2021) Comprehensive evaluation of the phenotypes of mice continuously exposed to low dose-rate radiation, *日本放射線影響学会第64回大会*, WEB開催, 9月.
- 13) 田中 聡, 田中 イグナシヤ (2021) Life span and Neoplasia in Mice Chronically Exposed to Low Dose-Rates of Gamma Rays, *日本放射線影響学会第64回大会*, WEB開催, 9月.
- 14) 衣川 哲弘, 和田 隆宏, 真鍋 勇一郎, 佐藤 文信, 田中 聡 (2021) Mathematical analysis of cancer development in mice and the effects of low dose rate radiation on lifespan -Differences depending on the histological type of solid tumor-, *日本原子力学会 2021 年秋の大会*, WEB開催, 9月.
- 15) 衣川 哲弘, 和田 隆宏, 真鍋 勇一郎, 佐藤 文信, 田中 聡 (2021) Analysis of radiation-induced life-shortening - dependent on cancer type -, *日本放射線影響学会第64回大会*, WEB開催, 9月.
- 16) 小倉 啓司, 田中 聡, 小村 潤一郎 (2021) Transgenerational effects in the progeny of mice exposed to chronic low dose-rate radiation Transgenerational effects in the progeny of mice exposed to chronic low dose-rate radiation, *日本放射線影響学会第64回大会*, WEB開催, 9月.
- 17) 杉原 崇, 村野 隼人, 村野 正子, 小村 潤一郎 (2021) Low dose-rate irradiation of pre-adipocyte cells in culture promotes their differentiation into adipocyte-like cells, *日本放射線影響学会第64回大会*, WEB開催, 9月.
- 18) 中平 嶺, 田中 イグナシヤ, 田中 聡, 小村 潤一郎 (2021) Long-term effects of continuous low- and medium-dose rate gamma-irradiation in utero – Interim Report, *日本放射線影響学会第64回大会*, WEB開催, 9月.
- 19) 和田 隆宏, 衣川 哲弘, 田中 聡 (2021) A mathematical interpretation of radiation effect from the viewpoint of aging, *日本放射線影響学会第64回大会*, WEB開催, 9月.
- 20) 小村 潤一郎, 田中 イグナシヤ, 田中 聡, 島田 義也 (2021) Current status of low dose radiation study in Japan, *日本放射線影響学会第64回大会*, WEB開催, 9月.

- 21) 山内 一己 (2021) カロリー制限による低線量率放射線連続照射マウスの寿命短縮の低減, 第94回日本生化学会大会, WEB開催, 11月.

その他

- 1) 島田 義也, 百島 則幸, 稲葉 次郎, 小野 哲也, 田内 広, 宇佐美 徳子, 小嶋 光明, 笹谷 めぐみ, 島田 幹男, 砂押 正章, 松本 英樹, 松本 義久, 赤田 尚史, 馬田 敏幸, 柿内 秀樹, 真田 哲也, 杉原 真司, 鈴木 正敏, 高橋 知之, 玉利 俊哉, 辻本 忠, 野村 直希, 平尾 茂一, 古川 雅英, 森泉 純, 横山 須美, 増田 毅, 斎藤 幹男, 高井 大策, 綾部 慈子, 伊志嶺 聡伸, 小倉 啓司, 香田 淳, 小村 潤一郎, 中平 嶺, 中村 慎吾, 藤川 勝義, 山内 一己, 箭内 敬典 (2021) 原子放射線の影響に関する国連科学委員会(UNSCEAR)2016年報告書科学的附属書 C 内部被ばく核種の生物学的影響—トリチウム— (日本語版), 日本放射線影響学会ホームページ及び日本保健物理学会ホームページへの掲載 (<https://www.jrrs.org/>及び<http://www.jhps.or.jp/>)

